

8. (NEW) The method according to claim 7, wherein said firing is performed at least two times.

9. (NEW) The method according to claim 8, wherein the firing temperature is raised each additional time firing is performed to a temperature higher than that of the previous firing.

10. (NEW) The method according to claim 9, further comprising at least one pulverization step performed after each firing.

11. (NEW) The method according to claim 10, wherein a mean particle size of pulverized powder after pulverization is 10 μm or less.

12. (NEW) The method according to claim 5, wherein at least one of the crystallite size and lattice distortion of the lithium manganese oxide are controlled by:

mixing lithium-containing compounds with magnesium-containing compounds to form a mixture;

firing the mixture in an oxidizing atmosphere at a temperature of 650°C to 1000°C for 5 to 50 hours to form an intermediate material;

pulverizing the intermediate material to form a pulverized material; and

firing the pulverized mixture in an oxidizing atmosphere at a temperature of 650°C to 1000°C for 5 to 50 hours to form a final material.

13. (NEW) The method according to claim 12, wherein the intermediate material is fired at a lower temperature than the final material.

14. (NEW) The method according to claim 12, wherein the mean particle size of the pulverized mixture is 10 μm or less.

15. (NEW) The method according to claim 12, wherein said compounds include at least one of (i) salts and oxides of lithium and (ii) salts and oxides of manganese.